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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,424	01/07/2005	Yoshiaki Kobayashi	Q85483	5910
23373	7590	12/23/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FRIEDHOFER, MICHAEL A	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/520,424

Applicant(s)

KOBAYASHI ET AL.

Examiner

Michael A. Friedhofer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-39 is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13-20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1-7-05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP H01-221824.

JP H01-221824 discloses in figure 3 a switch integrated type housing including a housing body or substrate 1 provided with a plurality of concave sections on an outer surface; a switch button sheet 4 provided on the outer surface of the housing body to cover the plurality of concave sections; a conductor 5 having a dome shape downwardly projecting and provided in each of the plurality of concave sections to contact with the switch button sheet; and a cover sheet 6 provided between the switch button sheet and the outer surface of the housing body in a portion of the outer surface of the body other than the plurality of concave sections to cover a lower surface of the conductor in each of the concave sections. A switch button 4b is arranged on the switch cover sheet above the conductor. The housing body has a projection in a center of each of the concave sections. The difference between a center of the conductor and central axis of the projection is within 1.25% of the diameter of the projection and is within .05 mm.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP H01-221824 in view of Kaikuranta et al.

JP H01-221824 discloses all of the claimed limitations with the exception of a top plate provided on the switch button sheet to cover a periphery of the switch button and the switch button sheet having first and second electrodes to be bridged by the conductor.

Kaikuranta et al teaches in figures 1-14 a switch integrated type housing including a housing 1101; a switch button sheet 1108; a top plate 1109; a conductor 1103; and a cover sheet 1102. The switch button sheet may include a pattern as shown in figure 6b in which the second electrode surrounds the first electrode in which both are connected with respective wiring line patterns embedded in the switch sheet.

It would have been obvious to one of ordinary skill in the art to apply the teachings of Kaikuranta et al to the Japanese document to place a top plate over the switch button sheet and to form the circuit pattern as shown in figure 6b of Kaikuranta et al because the top plate is for the purpose of isolating the buttons from each other while protecting the switches from damage and the circuit

pattern would not alter the operation, function, or purpose of the switch and is a well known pattern utilized in membrane switch and, in particular, dome switches.

Allowable Subject Matter

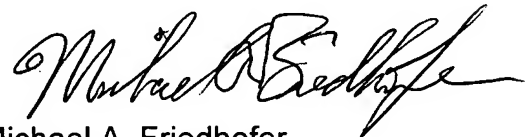
5. Claims 21-39 are allowed.
6. Claims 13-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnson et al, Harper, Inaba, Hester et al, and Nishikawa teach various push switch structures utilizing domed conductors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Friedhofer whose telephone number is 571-272-1992. The examiner can normally be reached on Mon-Fri 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael A. Friedhofer
Primary Examiner
Art Unit 2832

maf